

Time (mo)	0	1	2	3
Common liposomes	100.00	93.32	88.03	83.50
Preliposomes	100.00	99.86	99.53	98.76

The result shows that the content of the drug contained in the common liposomes decreased along with the time obviously, however, the content of the drug contained in the prelipoosomes didn't decreased along with the time significantly, it indicated that the CoQ<sub>10</sub> -containing prelipoosomes which contains spongiamine could evidently improve the stability of the drug.

### **CLAIMS**

1. CoQ<sub>10</sub> -containing prelipoosomes, also containing spongiamine and other lipid components in the structure.
2. CoQ<sub>10</sub> -containing prelipoosomes of claim 1, wherein the prelipoosomes are the granular and lyophilized solid-preparation.
3. CoQ<sub>10</sub> -containing prelipoosomes of claim 1 and claim 2, wherein the prelipoosomes contain CoQ<sub>10</sub> at the concentration of 0.2~40% (W/W).
4. CoQ<sub>10</sub> -containing prelipoosomes of claim 1 and claim 2, wherein the prelipoosomes contain spongiamine at the concentration of 0.1~20% (W/W).
5. CoQ<sub>10</sub> -containing prelipoosomes of claim 1 and claim 2, wherein the other lipid components are at lease one of the following lipid

components: cholesterol, soy lecithin, yolk lecithin, hydrogenated lecithin, DSPC, DPPP, poloxamer, DMPC and non-ionic surfactant like Brij.

6. The preparation method of CoQ<sub>10</sub> -containing preliposomes of claim 1 and claim 2, including the following processes:

(1) Make CoQ<sub>10</sub>, spongiamine and other lipid component melted by heating or dissolved by proper organic solvent, and lipid solution is made,

(2) Use fluidized bed, make the above-mentioned lipid solution sprayed on the underlay which is suspended in the middle of the fluidized bed, let the organic solvent volatilized, and CoQ<sub>10</sub> -containing preliposomes which contain spongiamine are got,

(3) Make the lipid solution mentioned in step (1) and water solution which contains underlay by membrane disperse method or melt method or infuse method, and CoQ<sub>10</sub> -containing liposomes which contains underlay are got,

(4) Make the CoQ<sub>10</sub> liposomes which contains underlay freeze drying or spray drying, wipe off the moisture, CoQ<sub>10</sub> -containing preliposomes which contains spongiamine are got.

7. The preparation method of claim 6, wherein the underlay is selected from one of the following materials: mannitol, glucose, sorbitol, sucrose, lactose, fucose, sodium chloride and polyvinylpyrrolidone.

8. The application of CoQ<sub>10</sub> -containing preliposomes of claim 1 in